

Claims

What is claimed is:

- [c1] A system for specifying read/write consistency for an application, comprising:
an application comprising at least one transaction, wherein the at least one transaction comprises at least one of a plurality of states, at least one of a plurality of transitions, and at least one artifact; and
a database operatively connected to the application;
wherein the application accesses data associated with the at least one artifact using a read/write consistency specification;
wherein the read/write consistency specification specifies at least one selected from the group consisting of a read consistency and a write consistency for the at least one artifact within the transaction.
- [c2] The system of claim 1, wherein the application is defined using an application usage specification.
- [c3] The system of claim 1, wherein the application is designed using an application usage specification and a business object specification.
- [c4] The system of claim 3, wherein the business object specification defines a variable of a business object.
- [c5] The system of claim 4, wherein the business object specification defines how the business object is to be used in within the plurality of states and the plurality of transitions using the application usage specification.
- [c6] The system of claim 1, wherein the application is designed using an application usage specification and a database schema.

- [c7] The system of claim 6, wherein the database schema defines an attribute in a database schema.
- [c8] The system of claim 7, wherein the database schema defines how the attribute is to be used in within the plurality of states and the plurality of transitions using the application usage specification.
- [c9] The system of claim 1, wherein the database is a relational database.
- [c10] The system of claim 1, wherein the read consistency includes at least one selected from the group consisting of none, read once, re-read, and read consistent.
- [c11] The system of claim 1, wherein the write consistency includes at least one selected from the group consisting of none, creating an object, write over, write append, and write consistent.
- [c12] The system of claim 1, wherein the artifact is one selected from the group consisting of a variable, an attribute, and a relationship.
- [c13] A method for generating an application, comprising:
 - obtaining a business object specification that defines at least one artifact;
 - obtaining an application usage specification that defines the application as a plurality of states and a plurality of transitions, wherein the at least one artifact is associated with a state;
 - obtaining a read/write consistency specification that corresponds to at least one transaction, wherein the at least one transaction comprises at least one of the plurality of states and one of the plurality of transitions and the read/write consistency specification includes at least one selected from the group consisting of a read consistency and a write consistency for the at least one artifact within the transaction; and

generating the application using the database schema, the application usage specification, and the read/write consistency specification;
wherein the artifact is one selected from the group consisting of a variable, a relationship, and an attribute.

[c14] The method of claim 13, wherein the read consistency includes at least one selected from the group consisting of none, read once, re-read, and read consistent.

[c15] The method of claim 13, wherein the write consistency includes at least one selected from the group consisting of none, creating an object, write over, write append, and write consistent.

[c16] A computer-readable medium having recorded thereon instructions executable by a processor, the instructions for:
obtaining a database schema that defines at least one artifact;
obtaining an application usage specification that defines the application as a plurality of states and a plurality of transitions, wherein the at least one artifact is associated with a state;
obtaining a read/write consistency specification that corresponds to at least one transaction, wherein the at least one transaction comprises at least one of the plurality of states and one of the plurality of transitions and the read/write consistency specification includes at least one selected from the group consisting of a read consistency and a write consistency for at least one artifact within the transaction; and
generating the application using the database schema, the application usage specification, and the read/write consistency specification.

[c17] An apparatus for generating an application, comprising:
means for obtaining a database schema that defines at least one artifact;

means for obtaining an application usage specification that defines the application as a plurality of states and a plurality of transitions, wherein the at least one artifact is associated with a state;

means for obtaining a read/write consistency specification that corresponds to at least one transaction, wherein the at least one transaction comprises at least one of the plurality of states and one of the plurality of transitions and the read/write consistency specification includes at least one selected from the group consisting of a read consistency and a write consistency for the at least one artifact within the transaction; and

means for generating the application using the database schema, the application usage specification, and the read/write consistency specification;

wherein the artifact is one selected from the group consisting of a variable, a relationship, and an attribute.